REMARKS

This application has been reviewed in light of the Office Action dated August 12, 2004. Claims 1-44 are presented for examination, of which Claims 1, 10, 11, 16-24, 26, 29, 32-36, 38, and 41-44 are in independent form. Claims 1, 10, 16, 17, 19, and 20 have been amended to define more clearly what Applicants regard as their invention, and Claims 2-4, 7-9, 11, 14, 15, and 18 have been amended as to matters of form and/or to ensure consistency of terminology. Applicants submit that no narrowing of the scope of the claims, as originally filed, is intended or believed effected by at least the amendments to the Claims 2-4, 7-9, 14, 15, and 18. Claims 22-44 have been added to provide Applicants with a more complete scope of protection. Favorable reconsideration is requested.

Applicants note with appreciation the allowance of Claims 11-15, 18, and 21, and the indication that Claims 3-9 would be allowable if rewritten so as not to depend from a rejected claim, and with no change in scope. The latter claims have not been so rewritten because, for the reasons given below, their base claim is believed to be allowable.

Claims 1, 2, 10, 16, 17, 19, and 21 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,754,367 (*Ito et al.*).

As shown above, Applicants have amended independent Claims 1, 10, 16, 17, 19, and 20 in terms that more clearly define what they regard as their invention. Applicants submit that these amended independent claims and new independent Claims 26, 29, 32-35, 38, 42, and 44, together with the remaining claims dependent thereon, are patentably distinct from the cited prior art for at least the following reasons.

The rejection of independent Claims 1, 16, and 19 over *Ito et al.* will first be addressed.

The aspect of the present invention set forth in Claim 1 an image processing method which sets correction conditions for correcting components regarding brightness of image data on the basis of a histogram corresponding to the components regarding image brightness represented by the image data, and corrects the image data according to the set correction conditions. The method includes calculating a ratio of the components included within a predetermined range in the histogram, and setting the correction conditions for correcting components regarding the brightness of the image data on the basis of the calculated ratio. That is, the invention as recited in Claim 1 is directed to an image processing method which sets correction conditions for correcting components regarding the brightness of image data on the basis of a histogram corresponding, and corrects the image data according to the set correction conditions.

Among other notable features of Claim 1 is setting the correction conditions for correcting components regarding the brightness of the image data on the basis of the calculated ratio.

Ito et al. relates to an intruding object detecting method and an intruding object detecting apparatus for judging whether or not a detected object is an intruding object, even in the condition that there are shadows of moving objects other than the target objects to be detected, such as shaking trees, leaves thereof, etc. *Ito et al.* acquires, in a histogram, a ratio image (r(x,y)) of a predetermined range. However, the *Ito et al.* method/apparatus does not determine a correction condition of correcting the components regarding brightness of image data based on the acquired ratio image (r(x,y)).

Applicants have found nothing in *Ito et al.* that would teach or suggest setting the correction conditions for correcting components regarding brightness of image data on the basis of the calculated ratio, as recited in Claim 1.

Accordingly, Applicants submit that Claim 1 is clearly patentable over *Ito et al.*

Independent Claims 16 and 19 are apparatus and storage medium claims respectively corresponding to method Claim 1, and are believed to be patentable over *Ito et al.* for at least the same reasons as discussed above in connection with Claim 1.

The rejection of independent Claims 10, 17, and 20 over *Ito et al.* will now be addressed.

The aspect of the present invention set forth in Claim 10 is an image processing method which sets a correction condition for an input image in accordance with a ratio of a shadow area in the input image. The method includes setting a first correction condition for the input image in accordance with a ratio of a first shadow area in the input image, and adjusting a correction condition for a shadow area of the first correction condition in accordance with a ratio of a second shadow area, included in the first shadow area, in the input image.

Among other important aspects of Claim 10 are setting a first correction condition for the input image in accordance with a ratio of a first shadow area in the input image, and adjusting a correction condition for a shadow area of the first correction condition in accordance with a ratio of a second shadow area, included in the first shadow area, in the input image.

In the *Ito et al.* method/apparatus, a second shadow area (g(x,y)), different from a first shadow area (f (x,y)), is used. However, in the method recited in Claim 10, on the other hand, the second shadow area is included in the first shadow area. As noted previously, the second shadow area (g(x,y)) of *Ito et al.* is different from the first shadow area (f(x,y)).

Further, *Ito et al.* is silent with regards to "setting a first correction condition for the input image" and "adjusting a correction condition for a shadow area of the first correction condition", as recited in Claim 10.

Indeed, nothing in *Ito et al.* would teach or suggest setting a first correction condition for the input image in accordance with a ratio of a first shadow area in the input image, and adjusting a correction condition for a shadow area of the first correction condition in accordance with a ratio of a second shadow area, included in the first shadow area, in the input image, as recited in Claim 10.

Accordingly, Applicants submit that Claim 10 is clearly patentable over *Ito et al.*

Independent Claims 17 and 20 are apparatus and storage medium claims respectively corresponding to method Claim 10, and are believed to be patentable over *Ito et al.* for at least the same reasons as discussed above in connection with Claim 10.

New independent Claims 22-24, 26, 29, 32-36, 38, and 41-44 will now be discussed.

Independent Claim 22 is directed to color distribution discrimination. More specifically, a color distribution of an image is discriminated from a histogram. A gradation correction condition is acquired for correcting the image on the basis of the discrimination, and the image is corrected by using the acquired gradation correction condition. The discrimination of the color distribution of the image is executed by acquiring a highlight point and a shadow point of the image from a histogram, and a cumulative frequency of a predetermined range of the histogram.

Applicants have found nothing in *Ito et al.* that would teach or suggest the features of Claim 22. Accordingly, Applicants submit that Claim 22 is clearly patentable over *Ito et al.*

Independent Claims 23 and 24 are apparatus and storage medium claims respectively corresponding to method Claim 22, and are believed to be patentable over *Ito et al.* for at least the same reasons as discussed above in connection with Claim 22.

The aspect of the present invention set forth in Claim 26 is an image processing method for correcting brightness of image data. The method includes discriminating, based on a histogram of the brightness of an image represented by the image data, a degree of lightness of the image, and acquiring, in the histogram, a ratio of cumulative frequency of a predetermined low-brightness area to the number of pixels being the targets in case of creating the histogram. The method also includes determining an extent of the correction on the basis of the discriminated degree of lightness of the image and the acquired ratio of cumulative frequency, and correcting the brightness of the image data on the basis of the determined extent of the correction.

Applicants have found nothing in *Ito et al.* that would teach or suggest the features of Claim 26. Accordingly, Applicants submit that Claim 26 is clearly patentable over *Ito et al.*

Independent Claims 32 and 34 are apparatus and storage medium claims respectively corresponding to method Claim 26, and are believed to be patentable over *Ito et al.* for at least the same reasons as discussed above in connection with Claim 26. Additionally, independent Claims 29, 33, and 35 include features similar, in at least some respects to those discussed above in connection with Claim 26. It is respectfully submitted

that nothing in *Ito et al.* would teach or suggest the features recited in these claims. Accordingly, Claims 29, 33, and 35 are believed to be patentable over *Ito et al.*

The aspect of the present invention set forth in Claim 36 is an image processing method for correcting brightness of image data of an input process target. The method includes calculating, when a peak having a frequency larger, by a predetermined level, than surrounding frequencies exists in a high-brightness area of a histogram represented by the image data, a value according to the frequency in the peak-surrounding high-brightness area, replacing the frequency of a peak-existing range of the histogram by the calculated value, and calculating a brightness value of a cumulative frequency from a maximum brightness value to a low-brightness side in the histogram of which the frequency that has been replaced indicates a predetermined value. The method also includes determining an extent of the correction based on the calculated brightness value, and correcting the brightness of the image data based on the determined extent of the correction.

Applicants have found nothing in *Ito et al.* that would teach or suggest the features of Claim 36. Accordingly, Applicants submit that Claim 36 is clearly patentable over *Ito et al.*

Independent Claims 41 and 43 are apparatus and storage medium claims respectively corresponding to method Claim 36, and are believed to be patentable over *Ito et al.* for at least the same reasons as discussed above in connection with Claim 36.

The aspect of the present invention set forth in Claim 38 is an image processing method. The method includes setting, so as to make a density of an output image higher than a density of an input image, an extent of a correction for the input image in accordance with a ratio of a shadow area in the input image. In a case where the ratio of

the shadow area is large, the extent of the correction is set so as to make the increase of the density small as compared with a case where the ratio of the shadow area is small.

Applicants have found nothing in *Ito et al.* that would teach or suggest the features of Claim 38. Accordingly, Applicants submit that Claim 38 is clearly patentable over *Ito et al.*

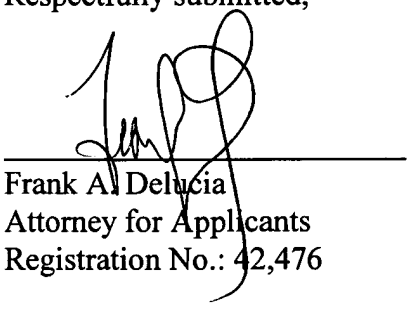
Independent Claims 42 and 44 are apparatus and storage medium claims respectively corresponding to method Claim 38, and are believed to be patentable over *Ito et al.* for at least the same reasons as discussed above in connection with Claim 38.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



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